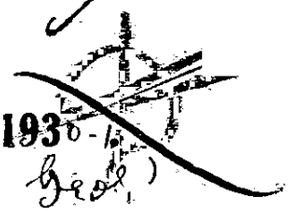
Preserve

App. F. IX-4

Previous References



File No. 3-30

Serial Nos. 78-81, 87, 8

93, 99, 107-109, 1

127, 131-133

Later References

Genl 3-30 (138, 139) Preserve

General and Revenue Secretariat.

Serial Nos. Six less

Part B for [illegible]

SUBJECT

Occurrence of a very heavy rock-burst in the Mysore Mine, K.G.F. on 21.6.31

D 72 V 2 3

Fool 3-30-78

DEVELOPMENT BRANCH.

Telephone Message. Recd. at 11-30 A.M. on 22nd April 193[illegible]

From

The Mining Inspector,
Kolar Gold Fields.

To

The Development Secretary to Govt.

Very heavy rock burst this afternoon (21st) in Mysore Mines. Eight injured brought up. Twelve missing. Rescue operation in progress.

(Sd.) Doraswami Iyer,
Mining Inspector.

1. For perusal

RG
22/4/31

Sd/-
22/4.

1st
3000 Mamba

Copy despatched (sent by Dewan per last mail letters)

Dewan

2. These are becoming rather frequent. The Chief Inspector ~~Mines~~ states in ~~Many of these~~ Cases of this kind that rock bursts are not preventable. In any case the matter requires special investigation for preventive measures as far as possible. Yours 22/4/31

With C. Chief Insp. of Mines
RG
22/4/31

TELEPHONE MESSAGE. Recd. at 11-30 A.M.
on 22nd April 1931.

From

The Mining Inspector,
Kolar Gold Fields.

To

The Development Secretary to Govt.

Very heavy rock burst this afternoon (21st) in Mysore Mines. Eight injured brought up. Twelve missing. Rescue operation in progress.

(Sd.) Doraswami Iyer,
Mining Inspector.

DEWAN'S OFFICE
5944.
22 APR. 1931

Copy —

3. Sub for perusal
RR
22/4/31

Dewan

4. Mr. rock-burst seen the getting more
Mr. Aiyangar's Serious

M2
22/4

RR
Orka(3)
22/4

TELEPHONE MESSAGE. Recd. at 11-30 A.M.
on 22nd April 1931.

OFFICE OF THE
THIRD MEMBER OF COUNCIL
22 APR. 1931
No 72.69

GEN. & REV. SECRETARIAT
22 APR. 1931
DEVELOPMENT BRANCH.

From

The Mining Inspector,
Kolar Gold Fields.

To

The Development Secretary to Govt.

Very heavy rock burst this afternoon (21st) in Mysore Mines. Eight injured brought up. Twelve missing. Rescue operation in progress.

(Sd.) Doraswami Iyer,
Mining Inspector.

Just

5. 32 men ... Died ... Third ... 22/4/31 ... 22/4/31 ... Mining ... 22/4/31

7223

App. F. III.—2]

General and Revenue Secretariat

Govt File No. 3 of 1931.

Serial No.	
7.	Forwarded with a draft to the Chief Inspector of Mines as per orders. M.K. 24.4.31. G. Lowe 24/4
79	From the Chief Inspector of Mines. No. D. 9823 d. 25.4.31. States that the matter requires special investigation in order to prevent such cases in future and requests that such an investigation may be held and a report submitted furnishing therein information as to the total no. of persons killed & injured during the current official year by accidents in the mines.
	From the Chief Inspector of Mines. No. 1923 d. 22.4.31. Confirms his telephonic message of the 21st and states that efforts are being made to get at the missing men promptly consistent with the safety of the rescuers.
	From the same officer. No. 1932 d. 23.4.31. Forwards a further report on the above accident and states that while rescue operations were in progress to recover another body in sight, another very serious accident occurred on the 22nd April in the same section of the mine causing four

1223
1225
1251

Govt File No. 3 of 193 | General and Revenue Secretariat

damage to shafts levels & cutting off all access to places where persons were entombed by the first occurrence and that probably all the missing persons, viz 11, have perished in addition to the 2 persons Killed & 2 who died in hospital as a result of injuries making a total of 15 deaths.

Yuked for perusal. The Chief Inspector's investigation & final reports may be awaited.

MAV Col 10. This may be sent for the perusal of Govt. as directed by 7.5.31. the Resident on another file. Gen. Secy

Ce 9/5

OFFICE OF THE FIRST M... 12 MAY 19... No. 1685

GENERAL SECRETARY 8 MAY 1931 No.

11. Please put up a DFN

RG 8/5

Ce 9/5

Yuked with a draft d. f. n.

MAV. Col 11.5.31. 12. Please type

Ce 11/5

Yuked with a typed d. f. n.

MAV. Col 12.5.31. 13. Opr d.f.n. for approval (Please see linked file)

Gen. Secy

Ce 13/5

Sd Minister

RG 12/5

Ce 13/5

D. M. E. 31.]

Telegraphic address:
"MINESPECTOR."

OFFICE OF THE CHIEF MINES COUNCIL
13 MAY 1931
No. 1694

D 1472

GEN. & REV. SECRETARIAT
13 MAY 1931
DEVELOPMENT BRANCH.

DEPARTMENT OF MINES AND EXPLOSIVES.

OFFICE OF THE CHIEF INSPECTOR OF MINES IN MYSORE.

Dated, Oorgaum, 10th May 1931.

D. O. No. 2035.

Dear Sir,

With reference to your letter No. D.9823/Geol. 3-30-79 dated the 25th April 1931 regarding the heavy rockburst on the afternoon of the 21st April 1931 in the Mysore Mine, directing me to hold a special investigation into the matter in order to prevent such cases as far as possible, in future, I beg to state, that the local Committee of Messrs. John Taylor & Sons' to whom I referred this subject for their consideration and expression of opinion invited me for an informal discussion and expressed a desire that their Chairman Mr. Nye and myself should meet the Member of Council informally in order to ascertain the views of Government. I am therefore to request you to be so good as to ascertain the convenience of the Member and let me know the place, date and time, when we can meet him. Mr. Nye is now in Ootty. He told me that any date after the 14th instant would suit him.

Yours sincerely,

C. E. Srinivasamurthy

To

N. Rama Rao, Esq., B.A., B.L.,
Secretary to the Government of His Highness
the Maharaja of Mysore, Development Departments,
Bangalore.

GENERAL SECRETARIAT
13 MAY 1931

General and Revenue Secretariat

Yudt File No. 7492/1931 of 193

Serial No.

19 Yudt with a draft D.O. to the 4th Inspr. as directed by the Hon. min. vide 19. opr. for approval
19.5.31. Gen. Secy
Ce 13/5.

20. RB 14/5/31

21. Issue Ce 14/5.

To the Chief Inspector of Mines. No. D. 10394
14.5.31. States that the 1st Member would be glad to meet him & Hon. Mr. Kaye, but before doing so requests him to submit confidentially his views as to the measures that should be taken for preventing these accidents. Id. 19.5.31. Furnishes from the above Officer D.O. No. 207 his views thereon (a letter which is interesting, but does not seem to help us much.

It says in effect — Bursts are unavoidable; they come without warning; no method of prevention has been found out, and life will continue to be lost in spite of all possible precautions. As Sir R. Kotze puts it tersely (too tersely) "A few have to perish to enable the many to live".

2). The appointment of a small Committee of local mining Engineers is suggested, and

consultation with the Hyg. he C. P. requests that the Member might be pleased to fix some date this week for an interview

(1st Member)

20. 5-31

24. I am afraid Cc 21/5 Can not find time for this Week this Week. It may be taken up sometime in July next Meantime can C I get the South African Committee's Report referred to in para of his letter?

1848/21/5

25. Yes. 21(1)

21. 5-31 Cc 22/5

26. Draft to the Chief Inspector united.

27. For approval Cc 25/5

25.5.31

26-5-31

28. Issue Cc 26/5

To the Chief Inspector of Mines, Langlaagte, 93
No. D. 6020 d. 30.5.31. states that the Interview may be held sometime in July next and requests him in the meantime to get a copy of the South African Committee's

7675
3 7868

General and Revenue Secretariat | Gest File No. | of 1930

Serial No.

99 From the Chief Inspector of Mines. No. 2128 d. 1.6.31. States, with refce to Sl. 79, that steps are being taken to form a Committee to examine the question of accidents in detail and concert measures to control them and also submits a statement showing the number of persons killed and injured by accidents in the Mines during the current and previous official years.

29 Ended with refce to the orders of the 1st Member on page 1 and those of the 3rd Member on page 3 of the notes.

MR. 30. Re question of Concerting
8.6.31. measures for the prevention of frequent rockbursts is proposed to be entrusted to a Committee of local mining Engineers — The matter has been deferred for discussion with 1st Member in July next (vide para 24 page 8)

KP 8/6 Secy Ce 9/6

10 6 31

Ce 15/6

A draft intimating the accident to Resident is put up herewith.

MR. 32. Opn for approval
16.6.31

Secy

Ce 16/6

33. Issue

16 6 31

Ce 16/6

P. 2553—GPB—50,000—8 7-30

7671
7868
8126
8146

Genl. File No. 3 of 193 | General and Revenue Secretariat

1231-d.

To the Secy to the Resident. No. Pol/17.6.31. 107
Intimates the occurrence of the above accident and states that the detailed report will be forwarded on its receipt from the Chief Inspector of Mines.

DEWAN'S OFFICE 36 JUL. 1931

GENERAL SECRETARY'S 3 JULY 1931 No 8

From the Chief Inspector of Mines. No. 2224 108
d. 18.6.31. Submits a detailed report of the + above accident for the information & orders 109
of Govt.

34 Submitted with a draft G.O. pending & a draft to the Residency.
MR.
22.6.31.

35. Clear type Go as revised Ce 30/6

36 Typed draft submitted.
MR.K.

37 Opc: for approval Ce 3/7
3.7.31. Gen. Secy

RR
38. IInd Member 3/7/31 Ce 3/7
Decision

General and Revenue Secretariat | Pol. File No. | of 193

Serial No.

129 To the Chief Inspector of Mines. No. D. 154 d. 8.7.31. Records the detailed report with some observations.

122 To the Secy. to the Hon'ble the Resident in Waziristan Pol. No. 49 d. 8.7.31. Forwards for information a copy of the detailed report of the above accident with a sketch & with a copy of the y.o. noted to above.

42 Yuted with a d. f.m. for Asstt to His Highness.
MW. KB 4J. Clean type ce 15/7
15.7.31.

41 Typed d. f. m. Asstt.
MW. Secy) + ce 17/7
17.7.31.

45 1st member) 20.7.31 ce 20/7

21.7.31
22.7.31 ce 22/7

46. Yuted with a d. s. m.
MW. KB Secy) ce 23/7
23.7.31.

47. JM 24-7-31 25-7-31 ce 29/7

24 JUL. 1931

NOTE—Contn. Sheet

WD 02559—G PB—50,000—8-7 30

Yus A MW 31.7.31

GEN. & REV. SECRETARIAT. 1 AUG. 031 ESTABLISHMENT BRANCH.

8144
525

Yest. File No. of 193 | General and Revenue Secretariat

From the Chief Inspector of Mines. No. 231 d. 12/7 5.8.31. Forwards for the information of Govt a copy of The Report of the Witwatersrand Rockbursts Committee published in 1924 received from South Africa. Flag Y

OFFICE OF THE ... F. ... 193 No. 1091

Refer para 24, page 8 of the notes wherein the Chief Secretary has ordered that a copy of the above Report may be got for his perusal.

Submitted for orders with the Report.

M.W. 7.8.31.

56. Report Seen. Rocks

I have had a discussion with Mr Nye re rock bursts and the matter, I believe, will be investigated by a Technical Committee including the C.I. This is my recollection. This may be verified from recorded papers

I think this is correct. Is there any report due from the Committee at this date?

11.8.31

52. It will be seen from the Chief Secretary's remarks in the linked file that Mr. Nye, Executive Member, John Taylor's Govt Committee, was requested by him to appoint a Committee to consider the question of designing measures for preventing or minimising rockbursts after making a careful

Page 4 of notes (Flag Y) in Yest. 2-31

Serial No.

study of some typical machines and that the latter had agreed to do so. No date has however been fixed for the submission of the report in the matter.

MR. KD
23.8.31.

53. For favour of perusal & return.
23/8
2nd member)

24/8/31

54. This was only about a month ago. After a suitable interval say a month or so more, the C'I may be asked as to the progress made by this Committee

Yes B till 25th September 1931.

JON
25/8

25/8/31

OFFICE OF SECOND MEMBER
24 AUG. 31
No. 375

GEN. & REV. SECRETARIAT.
27 SEP. 1931
DEVELOPMENT BRANCH.

55. Ended with a draft D.O. letter to the Chief Inspector as endorsed by the Member above

MR 26
9.10.31.

56. For Perusal

D. Lees) 57. Issue

13/10/31

13/10

14/10

TYPING SECTION
14. OCT. 1931
3-36 P.M.
GENL. & REV SECT.

131 To the Chief Inspector of Mines, Bangalore, D.O. No. D-2070 d. 15.10.31. Refers to his interviews with the previous 1st Member of Council re investigation of machinery by a Technical Committee

NOTE—Contn. Sheet.

5 23
1557

Gist File No. 9 of 1931 | General and Revenue Secretariat

enquires what progress has been made in the matter till now.

132

From the Chief Inspector of Mines. D.O.No.632 d. 19.10.31. States that it has not been possible to form this Technical Committee owing to the absence of some of the Superintendents & other officers of the mine from the Field on leave & that as also they gave him to understand that the Member was not very anxious to push the matter further the investigation of this question was suspended and no progress has been made in the matter till now.

Refer ~~to~~ orders of the previous 1st Member in para 50 & those of the 2nd Member in para 54 above.

Submit for orders with the connected files.

NAK. The Chief Inspector should keep the question alive and take up the formation of the Committee as soon as possible

Yes

Lab 26/10 D-Secy)

Forwarded pencil 26/10/31

28/10

For perusal

2nd Member)

mk 28/10

SECOND MEMBER OF COUN
29 OCT. 1931
No. 2674

1/12 29/10 mk 31/10 8/31/10

Serial No.

Draft D.O. submitted.
MR. KD
4.11.31.

Put up a typed draft please
4/11/31

TYPING SECTION
5. NOV. 1931
GENL. & REV. SECTT.

Linked with a typed draft.
MR. KD
6.11.31.

for approval.
6/11/31

DEWAN'S OFFICE
7 NOV. 1931

D Secy) For perusal

Dewan)

6/11

6/11/31

Secy (Mines)
8/11/31

Dft issued. No. D. 2311. d. 13.11.31.

Submitted for kind perusal
13/11/31

TYPING SECTION
11 NOV. 1931
3-5 P.M.
GENL. & REV SECTT.

Ch. Secy) Please see the orders of the Chief Secy on 14.11.1931 in the linked file.

d with another file
-39-101 Assembly Qn Secy.
Z
Linked file)

orders have, in D.D. No. D.3407/Genl 3-30 135 d. 6.1.32 to the Chief Inspector of Mines, been issued approving of the his proposal to the constitution of a Committee with himself as Chairman and the Deputy of the 5 gold mining Companies as members for the investigation of accidents & the measures to be adopted for their prevention. These papers will thereafter be filed if approved. Linked for orders.

MR. KD
7.1.32.

(may be filed)
8/1/32

Final Note by the First Member of Council.

Subject:—

Occurrence of a very heavy rock-burst in the Mysore Mine, Kolar Gold Field, on 21st April 1931.

I beg to submit for the gracious perusal of His Highness the file regarding the occurrence of a very heavy rockburst in the Mysore Mine, Kolar Gold Field, on the after-noon of the 21st April 1931.

In his letter dated 22nd April 1931 addressed to the Private Secretary to the Dewan of Mysore, the Chief Inspector stated that 8 injured persons were brought up and 12 were found missing and that rescue operations were in progress.

In his subsequent letter dated 23rd April 1931 he reported that while rescue operations were in progress, another very severe rockburst occurred on the 22nd April 1931 in the same section of the mine causing further damage to shafts and levels and cutting off all access to the places where persons were entombed by the first rockburst and that probably all the missing persons had perished.

In his latest letter dated 17th June 1931 submitting a detailed report of the above accident, the Chief Inspector states as follows:-

That as it was the end of the morning shift, only 200 persons out of 440 who are usually employed during that shift were at work in the affected portions at the time. Though search parties were immediately organized and sent to the various working places to rescue the victims, in spite of the rockbursts which continued to occur throughout the period, the occurrence of the second heavy rockburst on 22nd April 1931 at 3.59 p.m. closed the only safe passage that had been left open for the rescuers. After inspection of the badly affected localities, it was decided, in view of the danger

involved,

involved, to abandon further attempts to recover the dead bodies and to push forward, instead, the work of repairing Tennant's shaft and the level leading from it, in order to afford reasonable protection to the recue parties. The total number of casualties amounted to 16 dead and 18 injured. Excluding the first rockburst, no less than 165 shocks were recorded by the seismogrpahs between the 21st and 27th April, 11 of them classed as very heavy and 29 as heavy.. As a result of these bursts, the work in Tennant's Section has been completely stopped and a large number of working stopes thrown out of commission. Work will be resumed only after all reasonable precautions are taken to protect the workmen. All precautions had been taken before the rockbursts occurred and the accident was due to unavoidable causes.

It is under consideration to form a Committee composed of Mining Experts to hold a special investigation in the matter of the prevention of rockbursts as far as possible.

Bangalore,)
21st July 1931.)

MEMBER OF COUNCIL.

Appendix F G—1

SUBJECT.....

.....

.....

Section Genl.

File No. 1—30.

Serial No. 79

No. 09823

Diary No. of letter replied to 7223

General and Revenue Secretariat

( )

the *193*

Date of issue 25/4/31

Signed by H. C. S. Nowell

To

The Chief Inspector of Mines in Mysore,

Bangalore, K.G.F.

Sir,

With reference to your telephone message d. 22.4.31 reporting the occurrence of a very heavy rock-burst on the afternoon of the 21st instant in the Mysore Mines wherein ~~injured~~ 8 persons are said to have been brought up and twelve ~~persons~~ Coolies missing, I am directed to observe that though you have previously stated that rock-bursts are not frequent, Govt. ~~the Mines~~ are becoming more and more frequent and serious and that the matter requires special investigation with a view to prevent

[over

~~The necessities of their case require~~ ~~as far as possible~~. I am therefore to request you Thompson to be so good ~~as to hold~~ a speedy ~~and personal~~ inquiry into this affair ~~case and submit a detailed report~~ ~~immediately furnishing them~~ thereon for the information and orders of Govt thereon.

I have etc.,

C
2/4

Dun Secy to Govt

/as to have been an investigation & submit a report to Govt as an early date
I am also to request that information may be furnished as to

the total number of persons killed & injured during the current official year by accidents on the mines

GOVERNMENT OF MYSORE.

Telegraphic Address:—
"MINESPECTOR"

DEPARTMENT OF MINES AND EXPLOSIVES.
OFFICE OF THE CHIEF INSPECTOR OF MINES IN MYSORE.

No. 1923
Encl:—

Dated Oorgaum,.....22nd.....April....*193* 1
(S. India).

FROM

C. E. SURYANARAYANA RAU, Esq., Mem. A.I.M.E., &c.,
Chief Inspector of Mines in Mysore.

To

T. Singaravelu Mudaliar, Esq., B.A., B.L.,
Private Secretary to the Dewan of Mysore,
Bangalore.

Sir,

I have the honour to confirm the following telephone message sent yesterday:-

"Very heavy rockburst occurred in
"Mysore Mine this afternoon. 8
"injured brought up - 12 missing -
"Rescue operations in progress.
Minespector"

This rockburst occurred at 15.40 hours on 21-4-31 affecting levels and stopes between Tennant's and Gilbert's Shafts from 20th to 28th levels where about 200 persons were at work at different horizons It was both heard and felt on surface and shook several buildings producing severe cracks in them. As the rockburst occurred at the tail end of the morning shift a majority of the workmen had come up by then.

The extent of damage done to persons is a follows:-

1	killed
2	died in hospital
2	seriously injured
6	under observation
11	trivial
12	missing

Efforts are being made to get at the 12 missing men but access to the places where they were at work is rendered difficult owing

FI 24 APR. 1931 JIL
No. 1298

owing to the partial or total blocking of levels and shafts.

Every endeavour is being made to get at them as expeditiously as possible consistent with the safety of the rescuers.

Further progress will be reported tomorrow.

I have the honour to be,

Sir,

Your most obedient servant,

(Sd.) C.E.Suryanarayana Rau,

CHIEF INSPECTOR OF MINES

IN MYSORE.

9 7225

No. 1924 dated 22nd April 1931.

Copy forwarded, with compliments, to the Secretary to the Government of His Highness the Maharaja of Mysore, Development Departments, Bangalore, for information.

Sd

C E Suryanarayanarao

CHIEF INSPECTOR OF MINES

IN MYSORE.

Rg
23/4/31
ce
23/4

Rg
25/4/31

Rg
25/4/31
ce
25/4

3-30-81 D7251

GOVERNMENT OF MYSORE.

GEN. & REVENUE SECRETARIAT. 24 APR. 1931 DEVELOPMENT BRANCH.

Telegraphic Address :—
"MINESPECTOR"

DEPARTMENT OF MINES AND EXPLOSIVES.
OFFICE OF THE CHIEF INSPECTOR OF MINES IN MYSORE.

No. 1932.
Encl :-

Dated Oorgaum, 23rd April 1931.
(S. India).

FROM

C. E. SURYANARAYANA RAU, ESQ., Mem. A.I.M.E., &C.,
Chief Inspector of Mines in Mysore.

To

T. Singaravelu Mudaliar, Esq., B.A., B.L.,
Private Secretary to the Dewan of Mysore,
B a n g a l o r e.

PRS 24/4/31 24/4

Sir,

In continuation of my letter No.1923 dated the 22nd April 1931 regarding the heavy rockburst which occurred in Mysore Mine on 21-4-31 resulting in fatal and serious injuries to persons, I have the honour to state that out of the 12 persons reported as missing, one Sholay, timber mestri M.7980 has since been recovered alive and admitted to K.G.F. Hospital. While rescue operations were in progress to recover another body which was in sight, a very severe rockburst occurred again yesterday in the same section of the mine, causing further damage to levels and shafts. The rescue party with great difficulty escaped from the danger zone unhurt. All access to places where persons were entombed by the first rockburst has now been completely cut off by the 2nd rockburst and it is extremely dangerous to make any attempts to reach them. The main shafts serving this section of the mine have been damaged for long stretches and attempts are now being made to repair them as expeditiously as possible with a view to reach the men entombed in the stopes and levels.

Under the circumstances, it will be some considerable time before the shafts could be secured and levels repaired to render them reasonably safe for the rescue parties to work in.

I very much regret to state there is no hope of recovering any more bodies in the near future and it is almost certain that

they have all perished by now.

The total fatalities in this accident therefore amounts to fifteen.

2 persons killed instantaneously

2 died in Hospital following injuries

11 missing - probably perished.

I have the honour to be,

Sir,

Your most obedient servant,

Sd/- C.E.Suryanarayana Rau,
CHIEF INSPECTOR OF MINES
IN MYSORE.

M.S.

No.1933, dated Oorgaum, 23rd April 1931.

Copy forwarded, with compliments, to the Secretary to the Government of His Highness the Maharaja of Mysore, Development Departments, Bangalore, in continuation of this office Memo. No.1924, dated 22nd April 1931, for information.

C E Suryanarayana Rau
CHIEF INSPECTOR OF MINES
IN MYSORE.

7492 — 4½

M. E. 31.]

Telegraphic address:
"MINESPECTOR."

DEPARTMENT OF MINES AND EXPLOSIVES.

OFFICE OF THE CHIEF INSPECTOR OF MINES IN MYSORE.

D.O.No. 2043/E.1. *Dated, Oorgaum,* 13th May 1931.

⊕ 7539

Dear Mr. Ranga Rao,

I wrote the D.O. letter No.2035 on the 10th inst. and addressed it to Mr. Rama Rao, Secretary to Government, Development Departments not knowing that he was away on leave. As it has not been replied to date, I think it may be lying on his table unopened, if it has not been miscarried. I have herein enclosed a copy of that D.O. letter for ready reference and shall feel obliged if you can send me a line in reply-

Yours sincerely,

C E Muzaffar Ahmad

R. Ranga Rao, Esq., B.A., B.L.,
General Secretary to the Government
of His Highness the Maharaja of Mysore,
B a n g a l o r e.

GEN. & REV. SECRETARIAT
14 MAY 1931
DEVELOPMENT BRANCH.

Issued on 14.5.31.

Please issue draft reply for approval & signature today
14/5.

D. O. letter No.2035 dated 10th May 1931 from the Chief Inspector of Mines in Mysore, Oorgaum, to the Secretary to Government of Mysore, Development Departments, Bangalore.

---: o :---

With reference to your letter No.9823/Geol. 3-30-79 dated the 25th April 1931 regarding the heavy rockburst on the afternoon of the 21st April 1931 in the Mysore Mine, directing me to hold a special investigation into the matter in order to prevent such cases as far as possible, in future, I beg to state, that the local Committee of Messrs. John Taylor & Sons to whom I referred this subject for their consideration and expression of opinion invited me for an informal discussion and expressed a desire that their Chairman Mr.Nye and myself should meet the Member of Council informally in order to ascertain the views of Government. I am therefore to request you to be so good as to ascertain the convenience of the Member and let me know the place, date and time, when we can meet him. Mr. Nye is now in Ooty. He told me that any date after the 14th instant would suit him.

---: o :---

"C o p y"

C2 & Rau

CHIEF-INSPECTOR-OF MINES

IN MYSORE.

M.S.13/5/31.

Appendix F G—1

SUBJECT.....

.....

.....

Section 4(a).

File No. J-30

Serial No. 88

No. D/0384

Diary No. of letter replied to 7492

General and Revenue Secretariat

( )

the *193*

Date of issue 14/5/30

Signed by W.C.E. Newbery

To

The Chief Inspector of Mines in Mysore, Oorgaum, K.G.F.

Dear Sir,

In reply to your D.O. letter No. 2035 d. 10.5.30 stating that the Chairman of Messrs. John Taylor & Sons' Committee at Oorgaum and yourself are desirous of meeting the Chief Members of Council informally in order to ascertain the views of Govt in regard to the prevention of the occurrence of rockbursts in future in the K.G.F. and requesting to be informed

~~Suggesting that it is desirable to enquiring whether it would suit the Convenience of the Members to~~ Suggesting the holding of a meeting for discussing measures to prevent rockbursts in the K.G.F. in future

List of enclosures.....

Copied by.....

Examined by.....

[over

WD 02559—GPB—25,000—25-6-30

~~as to the date, etc., for meeting the~~

~~Minister~~, I am desired to state that the first member of Council will be glad to meet the Nyasaland Minister ~~the Minister has no objection to the proposal~~ ~~to meet your wish~~, but ~~he~~ desires before doing so you should confidentially submit for his views that you should first advise as to what measures could as to the matters mentioned in your letter.

be taken for preventing these accidents, ~~before arranging for the said meeting.~~ The Governor will be very early reply is requested as the matter is urgent and the occurrence of these accidents has attracted ~~to~~ ~~noticed by~~ His Highness the Maharaja ~~Minister~~.

yours. sincerely,

C.O. 1875

28

GOVERNMENT OF HIS HIGHNESS THE MAHARAJA OF MYSORE

General and Revenue Secretariat

Immediate.

D. O. No. D 10384 Genl. 3-30-88

Dated, Bangalore, 14/5/1931

Dear Sir,

In reply to your D.O.No:2035 dated 10th May 1931 suggesting the holding of a meeting for discussing measures to prevent rock-bursts on the Kolar Gold Fields in future, I am desired to state that the First Member of Council would be glad to meet Mr. Nye and you. Before doing so, you should confidentially submit to Government your views as to the measures that should be taken for preventing these accidents.

The favour of a very early reply is requested.

Yours Sincerely,

14/5

O. E. Suryanarayana Rao, Esq.,

Chief Inspector of Mines in Mysore.

D. M. E. 31.]

Telegraphic address: "MINESPECTOR."

DEPARTMENT OF MINES AND EXPLOSIVES.

OFFICE OF THE CHIEF INSPECTOR OF MINES IN MYSORE.

CONFIDENTIAL.

Dated, Oorgaum, 19th May 1931.

D.O.No. 2076

20 5-31

D 7675

GEN. & REV. SECRETARIAT. 20 MAY 1931 DEVELOPMENT BRANCH.

Dear Sir,

flag O

With reference to your D.O. letter No.10334/Geol. 3-30 dated the 14th instant calling for my views on the measures that should be taken to preveht rockbursts I beg to state as follows:-

The ground movements, locally known as Rockbursts, Airblasts and Quakes, connected with deep mining operations do not conform to any law. The physical condition of the rock walls differs widely in different localities and even in different parts of the same mine. Rockbursts are incidental to deep mining and cannot be avoided. They generally occur in extensively stoped areas where the walls have been deprived of their natural support by the extraction of the reef, sometimes causing very extensive damages. They may occur either in old abandoned areas of a mine with or without serious consequences to the mine or in a working zone causing considerable damage to person and property. As a majority of the workmen are at work during the morning shift on week days greater damage to person ensues, if the bursts occur during that period. Bursts occur without any previous warning. Although the hangingwall is bound to sag in deep workings due to superincumbent pressure yet the suddenness with which it sometimes breaks is attributable to its extremely hard and brittle nature, which renders it incapable of withstanding great pressure without deformation till the extreme limit of elasticity is reached culminating in a very heavy burst.

This subject has been engaging the serious attention of the mining authorities as well as this Department for a very long time and a method of ground support to withstand the ravages of rockbursts is being evolved with the experience gained from time to time to suit local conditions. There are very few deep mines in the world. The reefs in other parts are comparatively flat while those in Kolar are almost

almost vertical, and the country rocks and their geo-physical characterestics vary widely. Therefore the methods adopted in each case have also to vary considerably. Although every provision is made in the methods adopted to carry out mining operations as safely as practicable no definite remedy has yet been discovered to solve this problem. It has not been found possible to prevent them from occurring inspite of the present highly advanced mining practice. To avoid accidents the only course would be to abandon temporarily or permanently those areas in a mine in which these phenomena are prevalent. But this would interfere with economic mining and may lead to unfavourable results, viz: diminution of output or closing down of a mine which, in its way, would have just as deplorable an effect over a wider field as a bad accident. Or, the adequacy of the methods of support may be increased to such an extent as to make mining of the reef unprofitable. And so any measures that may be adopted to minimise the unavoidable loss of life should be consistent with economic mining and the methods in vogue here are being adopted with this end in view. Individual cases requiring special attention are dealt with on their own merits as occasion arises.

The following extract is taken from the Presidential address on the South African legislation in regard to Safety and Health in Mining by Sir Robert N. Kotze, late Government Mining Engineer, Union of Africa:-

"I may refer to the fundamental question whether an occupation which unavoidably leads to loss of life should be permitted or not. In all occupations involving the use of great natural forces or contact therewith, or the employment of great artificial forces, such as those developed in machinery, life will continue to be lost, even with the utmost precautions against accidents. It may be asked why such occupations should not be prohibited, since apparently they are merely carried on for providing profit and, to put it bluntly, there can be no ethical justification for buying the life of even a single individual with untold millions. But this view only presents one aspect of

the

the question. There are certain occupations that must be carried on even though they cost lives. Mining for the indispensable minerals is one of them. I need not now labour the point that civilisation is impossible without metals, that indeed the greater portion of the human race would perish of starvation if the supply of metals was completely cut off, since we cannot perform most of the ordinary bread-winning operations without the use of metals, and any large decrease in the food supply of the world must inevitably result in a smaller population. As the metals have to be won, it is therefore necessary that the dangerous occupation of winning them must continue. To put it tersely, a few individuals have to perish to enable the many to live. This is said in no spirit of callousness, but as a broad economic truth. It is perhaps particularly striking in the case of the fishing industry, which annually enacts its toll of life, but which directly furnishes a considerable portion of the human race with food. No one would I think venture to suggest that fishing should be prohibited because some fishermen are unavoidably drowned every year."

I fully agree with the above view.

The Union of South Africa appointed a committee in 1924 to enquire into the prevalence of rockbursts in Witwatersrand area. I think it will be advisable to appoint a small Committee of the local mining engineers to examine this question in detail and report upon the occurrence and control of rockbursts and the safety measures to be adopted in preventing accidents and loss of life resulting therefrom.

As the Government is likely to move into Mysore early next week for the birth day festivities I solicit the favour of fixing a date for the interview this week if convenient. This arrangement will suit Mr. Nye also.

Yours sincerely,

C. V. Narayanaswamy

R.Ranga Rao, Esq., B.A., B.L.,
Secretary to the Government of
H.H. the Maharaja of Mysore,
Development Deptts.,
Bangalore.

Appendix F G–1]

SUBJECT.....

Section Genl.
File No. 3–30.
Serial No. 93

Diary No. of letter replied to 765 D.O. No. D/0620

To
The Chief Inspector of Mines in Mysore, Bangalore, K.G.F.

General and Revenue Secretariat

( )

the *193*

Dear Sir,

Date of issue 30/5/31

In reply to your D.O. letter No. 2076 d. 19.5.31 furnishing your views in the matter of the prevention of accidents on the K.G.F. and requesting that a date with the Chairman may be fixed for the proposed interview, I am directed to inform you that the Hon. Council finds time for ~~there is no time to hold~~ the meeting just now and that it may be held some time in July next. In the meantime I am to request that you will kindly arrange to get a copy of Rule

Signed by for C.S. Navarao

List of enclosures.....

Copied by.....

Examined by.....

of the South African Committee's
Report on Racialism to which reference is made in the
penultimate para of your letter to ~~the Member's question~~ and forward the same
to this Office.

Yours sincerely,

Geol 3-30-99

GOVERNMENT OF MYSORE.

GEN. & REV. SECRETARIAT
4 JUNE 1931

Telegraphic Address:—
"MINESPECTOR"

DEVELOPMENT BRANCH.

DEPARTMENT OF MINES AND EXPLOSIVES.
OFFICE OF THE CHIEF INSPECTOR OF MINES IN MYSORE.

No. 2128
Encl:— One

Dated Oorgaum,...1st.....June.....1931
(S. India).

FROM

C. E. SURYANARAYANA RAU, ESQ., Mem. A.I.M.E., &C.,
Chief Inspector of Mines in Mysore.

To

The Secretary to the Government of His Highness
the Maharaja of Mysore, Development Departments,
B A N G A L O R E.

Sir,

With reference to your letter No.D.9823/Geol.3-30-79 dated 25-4-'31 requesting me to hold a special investigation regarding the prevalence of rockbursts with a view to prevent accidents and consequent loss of life, I have the honour to state that steps are being taken to form a committee to examine this question in detail and formulate measures to control rockbursts, prevent accidents and loss of life resulting therefrom.

A statement showing the number of persons killed and injured during the current official year by accidents in mines is submitted as requested. For purposes of comparison corresponding figures for the past official year are also included in the statement.

I have the honour to be,

Sir,

Your most obedient servant,

C E Suryanarayana Rao

CHIEF INSPECTOR OF MINES
IN MYSORE.

D.S.R.

Statement showing total number of persons killed and injured in the Mines on Kolar Gold Field during the official years 1929-30 and 1930-31 (to 15th May 1931).

Period	Killed	Seriously injured	Total Number of Accidents	Remarks
1929-30	56	206	209	
1930-31 (to 15th May)	57	173	176	

C E & Rae

CHIEF INSPECTOR OF MINES

IN MYSORE.

Oorgaum, K.G.F.,
1/6/1931.
M.S.

Appendix F G—1

SUBJECT.....

.....

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Section Genl.
File No. 3-30.
Serial No. 107
No. Pol. 1231

Diary No. of letter replied to 7868

General and Revenue Secretariat
( )
the *193*

To
The Secy to the Hon'ble the
Resident in Mysore, Bangalore

Date of issue 17th June 1931

Signed by Mr. N. Ramarao

Sir,

I am directed to intima
the occurrence of a very heavy
accident in the Mysore State
Mine, K.G.F. on 21st & 22nd April 1931
wherein 2 persons are reported to
have been killed instantaneously,
2 to have died in Hospital following in-
juries and 11 to be missing and (probably
perished). The delay in reporting the oc-
currence of the accident ~~has not been~~ is very much regretted.
2. The detailed report of the accident
will be forwarded as soon as the

List of enclosures.....

Copied by.....

Examined by.....

[over

ance is received from the Chief

Inspector of Mines.

—I have etc.,

C/16

for Director to Genl.

W 31

3 - 30 - 108

GOVERNMENT OF MYSORE.

D-6126

GEN. & REV. SECRETARIAT. 18 JUNE 1931 DEVELOPMENT BRANCH.

Telegraphic Address:—
"MINESPECTOR"

DEPARTMENT OF MINES AND EXPLOSIVES.

OFFICE OF THE CHIEF INSPECTOR OF MINES IN MYSORE.

No. 2219
Encl:— 3.

Dated Oorgaum, 17th June *193* 1.
(S. India).

FROM

C. E. SURYANARAYANA RAU, ESQ., Mem. A.I.M.E., &c.,
Chief Inspector of Mines in Mysore.

To

N. Rama Rao, Esq., B.A., B.L.,
Secretary to the Government of His Highness
the Maharaja of Mysore, Development Departments,
B a n g a l o r e.

Sir,

In continuation of this office memo No.1933 dated 23rd April 1931 forwarding a copy of letter No.1932 of the same date addressed to the Private Secretary to the Dewan of Mysore regarding the heavy rockburst which occurred in Mysore Mine on 21-4-31 resulting in 16 fatalities and serious injuries to 4 persons, I have the honour to submit herewith, a detailed report of the accident together with two spare copies for the information and orders of Government.

I have the honour to be,

Sir,

Your most obedient servant,

C E Suryanarayana Rau
Chief Inspector of Mines
in Mysore.

M.S.

SCHEDULE.

Accident No. 61.
Year 192 XX 1931.

Name and Situation of Mine— MYSORE GOLD MINE.

WD 089—GPB—1000 copies—24-5-27

Date	Time	Place	Class
21-4-31	13.35	Vide list attached.	11.

Killed or injured	Hours worked	Age	Occupation	Nature of injury (F. or S.)
16 Fatalities and 4 persons seriously injured as per detailed list attached.				

Cause of Accident .... Un.

A very heavy rockburst.

Names and Designations of persons prosecuted, etc.	No. of case	Result or Penalty

Remarks and References—

Sd/- C. S. Burynar yene Rao,
Chief Inspector of Mines.

Killed or injured.	Hours worked.	Age.	Occupation.	Nature of injury (F. or S.)
No. 57 stope below 2120 ft. level N., Tennant's Shaft.				
1. B. Venkatigan alias Ramadoo	8 7/12	32	Handjumper mestri, L.10,350/B. 8,132	Portion of dismembered body recovered on the 13th & 14th June 1931. F.
2. B. Muniswami	do	24	Handjumper cooly	Body not as yet recovered. F.
3. H. Venkatappa	do	22	- do -	Body recovered in part at 2.5 p.m. on 5-6-31. F.
4. S. Singaram	do	30	- do -	Body brought up at 9 a.m. on 4-6-31. F.
5. C. Muniswami	do	20	Stuff-cooly	Body not as yet recovered. F.
F. Sholay	do	45	Timber mestri, (L.7,980)	Contused wound of right leg & foot with oedema - threatened gangrene of foot. Died in hospital at 5.10 p.m. on 30-4-31. "Denticosmin". F.
S. Chinnayan	do	30	Handjumper cooly	Multiple injuries all over the body. Brought up at 6.15 p.m. on 22-4-31. F.
No. 36 stope below 2550 ft. level N., Tennant's Shaft.				
P. Muniappan	8 7/12	43 Yrs	Blockrock mestri (L.12,440)	Body not as yet recovered. F.
2. A. Kaliappan	do	45	Blockrock cooly	- do - do - F.
3. T. Muniswami	do	34	- do -	- do - do - F.
4. T. Thimma	do	27	- do -	- do - do - F.
Drive, 2240 ft. level N., Tennant's Shaft.				
1. U. Muniswami	do	34	Handjumper cooly	Body not as yet r- covered. F.
2. S. Thimmadoo	do	32	- do -	- do - do - F.
3. A. Mottay alias Mottigan	do	45	Stuff mestri (L.9,846)	Multiple injuries al over the body. F.
1. P. Ranganswami	do	45	Stuff-cooly	Wound of scalp & fra compound fracture o both bones middle o right leg, right 2r 3rd toes crushed; wounds of right gr toe, left leg & fo Died in hospital 2.30 p.m. on 22-4

Killed or injured.	Hours worked.	Age.	Occupation.	Nature of Injury (F. or S.)
			2240 Plat, ~~2340~~ ft. level, Gilbert's Shaft.	
B.F. 15.				
Ponnurangum	7/12	- 30	Unloading cooly	Lacerated wound with compound fracture of both bones above left ankle, wounds both knees & both hands with compound fracture of last metacarpal (right) fracture of left ribs with surgical emphysema. Died in hospital at 7.45 p.m. the same day F.
Total 16.				
1. Karuppan		35	Unloading cooly	Lacerated wound of dorsum of left foot, contusion left ankle, wound of scalp, right elbow (out) & abrasion left shoulder fractured scaphoid line left foot. S.
2. Thandoni	do	22	- do -	Wound of left wrist, tendons injured and joint opened. S.
			Plat, 81st level, No. 1 Incline.	
1. Appakutty	do	28	Boil-boy	Lacerated wound dorsum of left foot with compound fracture of last two metatarsals and wound middle of left forearm.
			Drive, 2240 ft. level N., Tennant's Shaft.	
~~1. Kaliyanam~~ 1. T. Velayutham	8 7/12	20	Stuff-cooly	Contused wound of wounds of both ar feet & contusion right hip.

Accident No.61
Year 1931.

DEPARTMENT OF MINES AND EXPLOSIVES.

Inspection of Mines Branch.

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PARTICULARS OF ENQUIRY.

Report received— 23-4-31.
Date of Inspection-23-4-31. by C.E.Suryanarayana Rau, Esq.
Date of Enquiry— 21,24,27, 29 & 30-4-31 and 1-5-31

Particulars obtained by Inspector and Remarks—

A very heavy rockburst occurred at 15 hours 37 minutes in Mysore Mine on the 21st April 1931. The magnitude of the burst was so great that it threw the E.L. and L.W. styles off the recording drums of the seismograph leaving only the vertical style which record a movement of 31 m/m. It was followed by 5 bursts of moderate intensity in quick succession. The tremor of the first burst was felt throughout the Field and in the surrounding country within a radius of 10 miles. Many buildings on the Mines were badly shaken attended by the cracking of the walls and the dislodging of a considerable quantity of plaster, etc. It was soon ascertained that the whole of the north section of the mine including Tennant's and Gilbert Shafts had been seriously affected. As the burst occurred soon after the morning shift, most of the men that had gone down in the morning had already come up or were on their way to surface. On an average about 440 men are employed in this section of the mine during the morning shift and a smaller number in the afternoon.

Search parties were organised and sent round the various working places to rescue those who were entangled or buried in the debris. Having ascertained the number of missing persons and their probable positions in the workings the underground staff was organised into short-shift relief parties i.e. each party worked in the place allotted

to

to it intensively for 4 hours and was then succeeded by the next relief party. In this way the rescue work was carried on from day to day inspite of the rockbursts, which continued to occur throughout this period, occasionally closing up the travelling ways and tunnels.

Unloading Mestri Sanjeevi, M.12528 and his 4 coolies Ponnurangam, Thandoni, Karuppan and Govindarajulu were at the 2240 ft. level plat, Gilbert Shaft, awaiting the arrival of a skip from surface when the rockburst occurred causing considerable damage to the plat and its timbers. All of them sustained injuries of various degrees, 3 serious and one trivial, of whom one ~~Poonuran~~ Ponnurangam succumbed at 7-45 p.m. the same day. Two gangs of trammers in charge of 2 stuff mestris, who were walking along the same 2240 ft. level from Gilbert's at the end of their shift, were caught and buried in the debris at the place marked B in the plan of the underground workings accompanying this report. Rescue parties cleared the debris as quickly as possible and uncovered some of them. One of the stuff mestris viz: Mottay alias Mottigan M.9845 had been killed and P.Rangaswami, a cooly, who had been rescued alive with wounds of scalp, face, etc., succumbed to the injuries at 8-30 p.m. on 22-4-31. The rest of the trammers were rescued alive with trivial injuries. The injuries of Velayudam, one of them, have since been classed "serious".

In No.57 stope above the 2240 ft. level, marked A in the plan, there were 7 men at work and all of them were entombed. Two hand-jumper coolies, K.Muniswami and Thimmadu, who were on their way to surface at the end of the shift, are believed to be buried in the debris in the 2240 ft. level at the place marked C immediately south of the stope. A blackrock mestri and 3 coolies who were building a packwall in a stope above the 26th level, marked D in the plan, have also been entombed. The search parties with very great difficulty rescued alive one P.Sholay, timber mestri M.7980, from the stope marked A after 18 hours of strenuous work under extremely trying conditions but he unfortunately succumbed on 30-4-31 to septicemia

following the injuries received underground. From the same place the body of one Chinnaiyan, handjumper coolie, was recovered at 6-15 p.m. on 22-4-31 i.e. about 26 hours after the rockburst. While rescue work was in progress a very heavy rockburst occurred about 3-59 p.m. on 22-4-31 and it was feared that the whole party of rescuers had been bottled up. The only safe passage that was then left open was closed by this burst and the rescue party with great difficulty managed to escape unhurt.

It was after the occurrence of this rockburst that I inspected in company with Captains Benson and Considine, Chief Underground Agent and Asst. Underground Agent, respectively, the damaged portions of Gilbert and Tennant's Shafts and some of the levels which had been badly affected including the place marked A with a view to ascertain the advisibility or otherwise of continuing rescue operations. It is needless to add that we ran great personal risk in this venture. These places were admittedly dangerous and we thought it injudicious to risk the lives of the rescuers under the circumstances. Further attempts to search for and recover the dead bodies were therefore abandoned and the work of repairing Tennant's Shaft and level leading from it to the place marked A was vigorously pushed forward to afford reasonable protection to the rescue parties.

Immediately following the big rockburst on the 21st April many rockbursts of lesser intensity continued to occur during that day and the following day and no less than 56 bursts in 32.5 hrs., or one rockburst every half hour, have been recorded by the Seismograph at the K.G.F. Observatory. During all this time intensive rescue operations were being carried on underground to release the injured men and recover the dead bodies. Working under these conditions is extremely difficult and all credit is due to persons who took part it at great personal risk.

Attempts made to reach the place marked C from Edgar's Shaft having

having proved futile owing to the prevalence of rockbursts, the work of repairing Tennant's shaft was put in hand to establish communication between stope No.57 - marked A - and the 2240 ft. level plat, Tennant's Shaft. This work is now completed and three bodies all highly decomposed have been recovered from this stope, one on 4-6-31 and two in a dismembered condition on 5-6-31 and 13-6-31, respectivel After recovering the remaining 4 bodies from A and C stations - 2 at each place - attempts will be made to reach the 4 bodies caught in the stope marked D which is 310 ft. below. This place is inaccessible at present and 300 ft. of the shaft has to be repaired to reach it. It will therefore take some considerable time before these bodies could be located and recovered, provided the shaft repair work is not hampered by further rockbursts occurring in this zone.

The following statement shows the number of persons involved in this accident:-

	Fatal	Serious	Trivial
No. of bodies recovered from the debris underground ..	5	..	..
No. of deaths in hospital following injuries received..	3	..	..
No. of bodies yet to be recovered	8	..	..
No. of persons seriously injured	..	4	..
No. of persons trivially injured	..	..	14
Total	16	+ 4	+ 14

Judging from the extensive damage done to the workings, the consequences of this accident could easily have been more terrible if the same rockburst had occurred during the morning shift, when the full complement of workmen - 440 persons on the average - were present at their respective working places.

It will be seen from the underground plan accompanying this report that the extent of damage done to the principal shafts and

some of the important levels connecting them is very great. The blocks resulting from the present rockburst are shewn in red while those due to previous bursts are shewn in black. Localities seriously affected are indicated by red crosses and those less seriously effected by red dots shading. The light-dark shaded portion of the plan represents the stoped out area and the dark thick lines represent the packwalls. The full extent of damage done to the workings is not yet known as most of the places are inaccessible.

The details as far as known, are enumerated in Appendix A attached to this report. Following the big rockburst, no less than 165 shocks were recorded by the seismographs between the 21st and 27th April 1951 which are classified as follows:-

Very heavy	..	11
Heavy	..	29
Medium	..	26
Slight	..	99
Total	..	165

As a result of these bursts the work in Tennant's Section has been completely stopped with the exception of one stope in the 360 ft. level. A large number of working stopes have been thrown out of commission.

The reef in Tennant's Section has widened itself abnormally at certain places and as a result of stoping operations, large excavations locally known as " gulleys " were formed. These are supported by packwalls wherever possible and filled with "deads" at other places. Some of the gulleys are so large that it was found rather impracticable to fill them completely for want of sufficient waste rock, which in former years was being specially lowered from surface for the purpose. All the stopes of normal width have been systematically supported by packwalls and large stulls and the levels by arched pipstyes, set

timbering

timbering and coverings wherever necessary. This method of mining ground, which was evolved after a careful study and experimentation is being followed now. Most of the stopes that have been lost are in the neighbourhood of these gulleys.

Mr. Kenneth B. Taylor one of the members of the firm of Messrs John Taylor & Sons, addressing the shareholders of the Lygoro Gold Mining Co., Ltd., in London on 22nd April last referred to this rock burst in the following terms "We greatly regret the heavy list of casualities. Though every-thing is done that is possible in the light of the most up-to-date scientific knowledge to mitigate the effect of these rockbursts, even so, one cannot eliminate the risk of casualities, particularly when they occur in the busy time of the day".

The first item of work will be to examine and repair Tennant's shaft below the 2240 ft. level to reach the place marked D and recover the dead bodies from there. Gilbert's shaft and the damaged levels will be examined and repaired next. As this work proceeds the stopes now lost will be uncovered and examined but no work will be done in them until the levels are properly secured, after which it will be decided whether stoping operations can be resumed. It is doubtful whether economic mining will be possible under these conditions but in the interests of the safety of the workmen all reasonable precautions will be taken if work is at all to be resumed in this area.

In the meantime the monthly return from the mine will be affected to a certain extent for some time to come owing to the rockburst zone constituting one of the stoping sections.

This is one of those deplorable accidents, due to an unavoidable cause, which I regret to say are not uncommon on this field. definite remedy has as yet been discovered to prevent rockburs to there is no doubt that the ste already taken greatly miti ate

report was unusually severe and quite abnormal.

A word of praise is due to the Superintendent and his staff - European, Anglo-Indian and Indian alike - for the zeal and intrepidity shown in carrying out rescue operations at great personal risk and under very adverse conditions till they were obliged to suspend operations by circumstances beyond their control. As these men worked in teams for stated periods it may not be advisable to choose individual names for special recognition.

C E Srinivasamudaliar

Oorgaum, K.G.F.
15/6/1931.
M.S.

ACCIDENT NO.61 of 1931.

Appendix A.

ROCKBURSTS WHICH AFFECTED THE WORKINGS OF THE MYSORE GOLD MINE DURING THE MONTH OF APRIL 1931.

Date	Time	Intensity	Remarks.
21st and 22nd	Starting 15-37	Very heavy	Affected the area between 1300 and 2670 Tennant's section - between Hancock's and Gilbert's Shaft. The following Levels are closed between Hancock's and Tennant's 1350, 1550, 1750 2000 and 2240 Levels. Between Gilbert's and Tennant's the 2440 Level is blocked, Tennant's 2440 crosscut blocked Ladder-way from 23 to 2440 below Timber Winze blocked, Tennant's 2550 and 2670 Levels blocked at ends of crosscuts from shaft. Tennant's Shaft 1550 blocked. Walls in shaft from 1750 to 2670 levels have been affected - bulging ~~fallen~~ in this and some have started to collapse. Plats are also damaged. Gilbert's Shaft. 2120 and 2240 Plats at this shaft have been damaged and had hanging fallen in the shaft from 2000 to 2440 levels. Gilbert's skip road damaged from 2000 to 2440 levels. Stopes affected. 2440 No.65; 2120 No.56; 2120 No.53; 2120 No.47; 2240 No.57; 2440 No.64; 2550 No.32; 2550 No.35; 2550 No.38; 2670 No.36. The entire section has been stopped with the exception of one stope 360 level No.4. 48th level South of Auxiliary Main Winze, packwall in rise between old stope fallen down.
24th	12-45	Slight	Affected Tennant's Main Winze 35th level, plat damaged and winze blocked at 35 chute
26th	2-00	Heavy	Affected 25 Edgar's Crosscut, 75 feet from Hancock's 2520 plat - Level for 30 feet Partially blocked.
	3-30	Heavy	Affected 27th level North of Crocker's shaft the level is blocked at the end of the crosscut for a distance of approximately 50 ft. The 31st level, 400 feet North of Ribbledale Shaft, 300 feet level rails blown up and setts damaged. The 32nd level south of Ribbledale's Timber Winze closed for a distance of about 1[illegible] feet at the 360 feet South of timber

The

Date	Time	Intensity	Remarks.
			The 53rd level blocked at 100 feet South of Ribblesdale's Timber Winze and also blocked 250 feet North of Ribblesdale No.1 Winze.
23th	21-10	Heavy	Affected 2120 Rowse's South Drive. Drive blocked 150 feet South of Crosscut.

DEPARTMENT OF MINES AND EXPLOSIVES.

OFFICE OF THE CHIEF INSPECTOR OF MINES IN MYSORE.

No. 2224
Incl :—

Dated Oorgaum, 18th June 1931.
India).

FROM

C. E. SURYANARAYANA RAU, Esq., Mem. A.I.M.E., &c.,
Chief Inspector of Mines in Mys

N. Rama Rao, Esq., B.A., B.L.,
Secretary to the Government of
His Highness the Maharaja of Mysore
Development Departments,
Bangalore.

Sir,

In continuation of this office letter No. 2219 dated 17th Jun 1931 submitting for the information and orders of Government a detaile report of the heavy rockburst accident in Mysore Mine on 21-4-31. have the honour to request you to be so good as to have the following correction made therein:-

In line 10 of continuation sheet No.1, the name "Poongan" should read "Ponnurangam".

I have the honour to be,

Sir,

Your most obedient servant,

C E Suryanarayanarao

CHIEF INSPECTOR OF MINES

IN MYSORE.

SCHEDULE.

Name and Situation of Mine— **MYSORE GOLD MINE.**

WD 089—GPB—1000 copies—24-5

Date **21-4-31**	Time **13.35**	Place **Vide list attached.**	Class **11.**

Killed or injured	Hours worked	Age	Occupation	Nature of injury (F. or S.)
16 Fatalities and 4 persons seriously injured as per detailed list attached.				

ent .... **Un.**

A very heavy rockburst.

Designations of persons prosecuted, etc.	No. of case	Result or Penalty

arks and References—

Killed or injured.	Hours worked.	Age.	Occupation.	Nature of injury (F. or S.)
No. 57 stope below 2120 ft. level N., Tennant's Shaft.				
1. S. Venkatigan alias Ramadoo	8 7/12	32	Handjumper mestri, M.10,250/B. 8,132	Portion of dismembere body recovered on th 13th & 14th June 193 F.
2. M. Muniswami	do	24	Handjumper cooly	Body not as yet re- covered. F.
3. M. Venkatappt	do	22	do	Body recovered in pa at 2.5 p.m. on 5-6-3 F.
4. S. Singaram	do	30	do	Body brought up at 9 a.m. on 4-6-31. F.
5. C. Muniswami	do	20	Stuff-cooly	Body not as yet re- covered. F.
6. P. Bholay	do	45	Timber mestri, (M.7,980)	Contused wound of ri leg & foot with oede threatened gangrene foot. Died in hospit at 5.10 p.m. on 30-4 "Septicaemia". F
Chinnayan	p	30	Handjumper cooly	Multiple injuries al over the body. Brou up at 6.15 p.m. on 22-4-31.
No. 36 stope beldw 2550 ft. level N., Tennant's Shaft.				
1. P. Muniappan	8 7/12	43 MR	Blackrock mestri (M.12,440)	Body not as yet re- covered.
2. A. Pallappch	do	45	Blackrock cooly	- do - do -
3. T. Muniswami	do	34	- do -	- do - do -
4. T. Thimma	do	27	- do -	- do - do -
Drive, 2240 ft. level N., Tennant's Shaft.				
1. B. Muniswami	do	34	Handjumper cooly	Body not as yet r. covered.
2. S. Thimmadoo	do	32	- do -	- do - do
3. A. Mottay alias Mottigan.	do	46	Stuff mestri (M.9,846)	Multiple injuri over the body.
4. P. Ranjgaswami	do	45	Stuff-cooly	Wound of scalp compound fractu both bones midd right leg, righ 3rd toes crushe wounds of right toe, left leg & Died in hospit 2.30 p.m. on 22

Plat, 2240 ft. level, Gilbert's Shaft

B.F. 15.

1. Ponnurangam	30	Unloading cooly	Lacerated wound w compound fractre both bones abo'e ankle, wounds at knees & both hand with compound fra ture of last meta pal (right) fract of left ribs with gical emphysema. Dieu-in hospital 7.45 p.m. the sa
			Lacerated wound dorsum of left f contusion left wound of scalp, elbow (out) & ab left shoulder r ed scaphoid lin foot.
			Wound of left tendons injured joint opened,
			Lacerated wound of left foot w pound fracture two metatarpals wound middle of forearm.

e Shaft.

Contused wou wounds of both feet & contusio right knee.

to it intensively for 4 hours and was then succeeded by the next relief party. In this way the rescue work was carried on from day to day inspite of the rockbursts, which continued to occur throughout this period, occasionally closing up the travelling ways and tunnels.

Unloading mestri Sanjeevi, M.12528 and his 4 coolies Ponnurangam, Thandoni, Karuppan and Govindarajulu were at the 2240 ft. level plat, Gilbert Shaft, awaiting the arrival of a skip from surface when the rockburst occurred causing considerable damage to the plat and its timbers. All of them sustained injuries of various degrees, 5 serious and one trivial, of whom one ~~Poonsan~~ Ponnurangam succumbed at 7-45 p.m. the same day. Two gangs of trammers in charge of 2 stuff mestris, who were walking along the same 2240 ft. level from Gilbert's at the end of their shift, were caught and buried in the debris at the place marked B in the plan of the underground workings accompanying this report. Rescue parties cleared the debris as quickly as possible and uncovered some of them. One of the stuff mestris viz: Mottay alias Mottigan M.3846 had been killed and P.Rangaswami, a cooly, who had been rescued alive with wounds of scalp, face, etc., succumbed to the injuries at 2-30 p.m. on 22-4-31. The rest of the trammers were rescued alive with trivial injuries. The injuries of Volayudam, one of them, have since been classed "serious".

In No.57 stope above the 2240 ft. level, marked A in the plan, there were 7 men at work and all of them were entombed. Two hand-jumper coolies, S.Muniswami and Thimmadu, who were on their way to surface at the end of the shift, are believed to be buried in the debris in the 2240 ft. level at the place marked C immediately south of the stope. A blackrock mestri and 3 coolies who were building a packwall in a stope above the 26th level, marked D in the plan, have also been entombed. The search parties with very great difficulty rescued alive one P.Sholay, timber mestri M.7980, from the stope marked A after 18 hours of strenuous work under extremely trying conditions but he unfortunately succumbed on 30-4-31 to [illegible]

following the injuries received underground. From the same place the body of one Chinnagan, handjumper cooly, was recovered at 6-15 on 22-4-31 i.e. about 26 hours after the rockburst. While rescue work was in progress a very heavy rockburst occurred about 3-59 p.m on 22-4-31 and it was feared that the whole party of rescuers had been bottled up. The only safe passage that was then left open was closed by this burst and the rescue party with great difficulty managed to escape unhurt.

It was after the occurrence of this rockburst that I inspected in company with Captains Benson and Considine, Chief Underground Agent and Asst. Underground Agent, respectively, the damaged portions of Gilbert and Tennant's Shafts and some of the levels which had been badly affected including the place marked A with a view to ascertain the advisibility or otherwise of continuing rescue operations. It is needless to add that we ran great personal risk in this venture. These places were admittedly dangerous and we thought it injudicious to risk the lives of the rescuers under the circumstances. Further attempts to search for and recover the dead bodies were therefore abandoned and the work of repairing Tennant's Shaft and level leading from it to the place marked A was vigorously pushed forward to afford reasonable protection to the rescue parties.

Immediately following the big rockburst on the 21st April many rockbursts of lesser intensity continued to occur during that day and the following day and no less than 58 bursts in 32.5 hrs., or one rockburst every half hour have been recorded by the Seismographs at the K.G.F. Observatory. During all this time intensive rescue operations were being carried on underground to release the injured men and recover the dead bodies. Working under these conditions is extremely difficult and all credit is due to persons who took part in it at great personal risk.

having proved futile owing to the prevalance of rockbursts, the work of repairing Tennant's Shaft was put in hand to establish communication between stope No.57 - marked A - and the 2240 ft. level plat, Tennant's Shaft. This work is now completed and three bodies all highly decomposed have been recovered from this stope, one on 4-6-31 and two in a diamembered condition on 5-6-31 and 13-6-31, respectively After recovering the remaining 4 bodies from A and C stations - 2 at each place - attempts will be made to reach the 4 bodies caught in the stope marked D which is 310 ft. below. This place is inaccessible at present and 300 ft. of the shaft has to be repaired to reach it. It will therefore take some considerable time before these bodies could be located and recovered, provided the shaft repair work is not hampered by further rockbursts occurring in this zone.

The following statement shows the number of persons involved in this accident:-

	Fatal	Serious	Trivial
No. of bodies recovered from the debris underground ..	5	..	..
No. of deaths in hospital following injuries received..	3	..	..
No. of bodies yet to be recovered ..	8	..	..
No. of persons seriously injured ..		4	..
No. of persons trivially injured ..		..	14
Total	16	+ 4	+ 14

Judging from the extensive damage done to the workings, the consequences of this accident could easily have been more terrible if the same rockburst had occurred during the morning shift, when the full compliment of workmen - 440 persons on the average - were present at their respective working places.

It will be seen from the underground plan accompanying this report that the extent of damage done to the principal shaft and

some of the important levels connecting them is very great. The blocks resulting from the present rockburst are shown in red while those due to previous bursts are shown in black. Localities seriously affected are indicated by red crosses and those less seriously affected by red dots shading. The light-dark shaded portion of the plan represents the stoped out area and the dark thick lines represent the packwalls. The full extent of damage done to the workings is not yet known as most of the places are inaccessible.

The details as far as known, are ennumerated in Appendix A attached to this report. Following the big rockburst, no less than 165 shocks were recorded by the seismographs between the 21st and 27th April 1931 which are classified as follows:-

Very heavy	..	11
Heavy	..	29
Medium	..	26
Slight	..	99
Total	..	165

As a result of these bursts the work in Tennant's Section has been completely stopped with the exception of one stope in the 360 ft. level. A large number of working stopes have been thrown out of commission.

The reef in Tennant's Section has widened itself abnormally at certain places and as a result of stoping operations, large excavations locally known as " gulleys " were formed. These are supported by packwalls wherever possible and filled with "deads" at other places Some of the gulleys are so large that it was found rather impracticabl fill them completely for want of sufficient waste rock, which in former years was being specially lowered from surface for the purpose. All the stopes of normal width have been systematically supported by packwalls and large stulls and the levels by arched pirstyes, rot

timbering and covering wherever necessary. This method of supp
ing ground, which was evolved after a careful study and experimen
tion is being followed now. Most of the stopes that have been lo
are in the neighbourhood of those gulleys.

Mr. Kenneth B. Taylor one of the members of the firm of Mes
John Taylor & Sons, addressing the shareholders of the Lynore Gold
Mining Co., Ltd., in London on 22nd April last referred to this ro
burst in the following terms: "We greatly regret the heavy list of
casualities. Though every thing is done that is possible in the
light of the most up-to-date scientific knowledge to mitigate the
effect of these rockbursts, even so, one cannot eliminate the ris
of casualities, particularly when they occur in the busy time of
day".

The first item of work will be to examine and repair Jenni
shaft below the 1260 ft. level to reach the place marked D and r
cover the men believed from there. Gilbert's shaft and the dama
levels will be examined and repaired next. As this work proceed
the stopes now lost will be uncovered and examined but no work w
be done in them until the levels are properly secured, after whi
it will be decided whether stoping operations can be resumed. I
doubtful whether economic mining will be possible under these
conditions but in the interests of the safety of the workmen all
reasonable precautions will be taken if work is at all to be r
in this area.

In the meantime the monthly return from the mine will be
affected to a certain extent for some time to come owing to the
rockburst zone constituting one of the stoping sections.

This is one of those deplorable accidents, due to an un
ble cause, which I regret to say are not uncommon on this fi
definite remedy has as yet been discovered to prevent roc bu
there is no doubt that the steps already taken greatly mini
facts of the heavier type of rockbu

report was unusually severe and quite abnormal.

A word of praise is due to the Superintendent and his staff European, Anglo-Indian and Indian alike - for the zeal and intre idity shown in carrying out rescue operations at great personal isk and under very adverse conditions till they were obliged to uspend operations by circumstances b non worked in teams for st ted period choose individual names for special r

Appendix A.

ROCKBURSTS WHICH AFFECTED THE WORKINGS OF THE MYSORE GOLD MINE DURIN

THE MONTH OF APRIL 1931.

	Remarks.
	Affected the area between 1500 and 2070 Tennant's Section - between Hancock's and Gilbert's Shaft.
	The following Levels are closed between Hancock's and Tennant's 1350, 1550, 1750 2000 and 2240 Levels.
	Between Gilbert's and Tennant's the 2440 Lev is blocked, Tennant's 2440 crosscut block Ladder-way from 25 to 2440 below Timber Winze blocked, Tennant's 2650 and 2070 Levels blocked at ends of crosscuts from shaft.
	Tennant's Shaft 1550 blocked. Walls in shaft from 1750 to 2670 levels have been affected - bulging; fallen in t and some have started to collapse. Plats are also damaged.
	Gilbert's Shaft. 2120 and 2240 Plats at this shaft have b damaged and had hanging fallen in the sh from 2000 to 2440 levels.
	Gilbert's skip road damaged from 2000 to 24 levels.
	Stopes affected. 2440 No.65; 2120 No.58; 2120 No.53; 2120 No.47; 2240 No.57; 2440 No.64; 2550 No.32; 2550 No.35; 2550 No.36; 2670 No.36.
	The entire section has been stopped with th exception of one stope 350 level No.4.
	49th level South of Auxiliary Main Winze, packwall in rise between old stope falle down.
	Affected Tennant's Main Winze 35th level, plat damaged and winze blocked at 35 ch
	Affected 20 Edgar's Crosscut, 75 feet from Hancock's 2520 Plat - Level for 30 feet Partially blocked.
	Affected 27th level North of Crocker's Sha the level is blocked at the end of the crosscut for a distance of approximately 50 ft.
	The 31st level, 400 feet North of Ribblesd Shaft, 300 feet level rails blown up and sette damaged.
	The 32nd level south of Ribblesdale's Timb Winze closed for a distance of about 100 feet at the 360 feet South of timber Wi

The

ate	Time	Intensity	R e m a r k s.
			The 33rd level blocked at 100 feet South of Ribblesdale's Timber Winze and also blocked 250 feet North of Ribblesdale's No.1 winze.
28th	21-10	Heavy	Affected 2120 Rowse's South Drive. Drive blocked 150 feet South of Crosscut.

PROCEEDINGS OF THE GOVT OF H H.

THE MAHARAJA OF MYSORE.

Read -

K Letter No.1923 dated 22nd April 1931 from the Chief Inspector of Mines confirmin his telephone message dated 21st April 1931 reporting the occurrence of a very heavy rock-burst in the Mysore Mine/on the K.G.F. latter date and stating that 8 injured persons were brought up and 12 were found missing and that rescue operations were in progress

Z 2. Letter No.1932 dated 23rd April 1931 from the same officer submitting a further report on the accident referred to in his letter read above and stating that while rescue operations were in progress another very severe rock-burst occurred on the 22nd April 1931 in the same section of the mine, causing further damage to shafts and levels and cutting off all acces to the places where persons were entombed by the first rockburst and that probably all the missing persons ~~x~~ have perished.

3. Letter No.2219 dated 17th June 1931 from the Chief Inspector of Mines submitting a detailed report of the above accident for the information and orders of Government.

Order No.D. 154/Fac 3-30

Dated, 8/10 July 1931.

The Chief Inspector's report

discloses the following facts: -

A very heavy rock-burst occurred in the Mysore Mine at 15 h 37 m on 21st April 1931 and the tremor of it was so great that it was felt throughout the Field and in the surrounding country within a radius of 10 miles, many buildings in the Mines being badly shaken and their walls cracked. This first rock-burst was followed by others of moderat intensity in quick succession . It was ascertained that the whole of the north section of the mine, including Tennant's shaft, had been seriously affected. Fortunately, it being the end of the morning shift, only about 200 persons were at work in the affected portions at the time, out of about 440 who are usually employed during the shift.

Search parties were immediately organised and sent to the various working places to rescue the victims. Rescue work was carried on strenuously, under very trying conditions, from day to day in spite of the rock-bursts which continued to occur throughout the period, much hampering the operations.
A second heavy rock-burst occurred at 3.59 p.m. on 22nd April 1931 closing the only safe passage that had been left open for the rescuers, who, however, with great difficulty managed to escape unhurt. The Chief Inspector of Mines and a couple of officers of the Mine then inspected the badly affected localities at great personal risk, and in view of the danger involved, decided to abandon further attempts to recover the dead bodies and to push forward, instead, the work

of repairing the Tennant's shafts and the level leading from it, in order to afford reasonable protection to the rescue parties.

Upto the date of reporting, i.e., 17th June 1931, 5 bodies have been recovered and 8 more are still to be found. Of those rescued alive 3 died in hospital ~~x~~ 4 are said to be seriously and 14 trivially injured. The total number of casualties is therefore 16 dead and 18 injured. All these casualties, except four entombed in the 26th level, occurred in the 2240 ft level between Gilbert's and Tennant's shafts. It is reported that it will be some considerable time before the four bodies in the 26th level are recovered, owing to the present inaccessibility of the spot. Excluding the first rock-burst, no less than 165 shocks are reported to have been recorded by the seismographs between the 21st and the 27th April, 11 of them classed as very heavy, and 29 as heavy. As a result of these bursts, the work in Tennant's Section has been almost completely stopped and a large ~~xxx~~ number of working stopes thrown out of commission. Work will be resumed here, if at all, only after all reasonable ~~securities~~ precautions are taken to protect the workmen. The Chief Inspector states that ~~such~~ all precautions had been taken before the rock-bursts occurred and that the accident is due to ~~an~~ unavoidable causes.

He adds that no remedy has, as yet, been discovered to prevent rock-bursts and that the ~~area~~ ones under report were quite abnormal and unusually severe.

~~In the circumstances~~, Government, ~~while~~ deeply regret~~ing~~ the loss of life and the injuries caused, to the labourers and ~~do not consider that any one is to be blamed for the accident.~~ They wish to place on record the intrepedity and zeal shown by the rescue parties, who, at great personal risk, succeeded in saving many lives.

R3 3/7/31.

ea 3/7 Secy. to Govt. Dev. Deptts.

To

The Chief Inspector of Mines ~~in Mysore~~

~~The~~

Appendix F G—1

SUBJECT.....

.....

Section Genl.

Diary No. of letter replied to...1818.....

File No. 9-30.

Serial No. 122

No. Pol. 49 Ref. Our file

General and Revenue Secretariat

( )

the *193*

To

The Secy to the Hon'ble the Resident in Mysore.

Date of issue 8/7/31

Signed by Mr. N. R.

Sir,

In continuation of this office letter No. Pol. 1231/Genl. 9-30-10, d. 17.6.31, I am directed to forward herewith for information a copy of the detailed report (with plan) on the recent accident which occurred in the Mysore Mine, K.G.F. on the 21st April 1931 together with a copy of the G.O. recording the report issued in the matter.

List of enclosures.....

I have etc.,

Copied by.....

Examined by.....

Ce 30/6 Dear Secy to Govt,

over

G. R. S. III—3]

ROUTINE NOTES.

[To be used only for notes, requisitions, etc., not intended for permanent record.

Geol 3-30-427

DEPARTMENT OF MINES AND EXPLOSIVES.

OFFICE OF THE CHIEF INSPECTOR OF MINES IN MYSORE.

GOVERNMENT OF MYSORE

D. M. E. DEVELOPMENT SECRETARIAT
4 AUG. 1931

D.O.No. 233

Dated Oorgaum, 5th August 1931.

D 525
GEN. & REV. SECRETARIAT.
6 AUG. 1931
DEVELOPMENT BRANCH.

Dear Sir,

Adverting to your D.O. letter No.D.10620/Geol.3-30-93 dated 30-5-1931 regarding rockbursts enquiry, I beg to forward under separate cover for the information of Government a copy of Report of the Witwatersrand Rockburst Committee - 1924, recently received from South Africa.

Yours sincerely,

C E Iyengaramakar

D. Srinivasa Iyengar, Esq., B.A.,
Secretary to the Government
of His Highness the Maharaja
of Mysore, Development Department,
BANGALORE.

Appendix F G—1]

SUBJECT .....

.....

.....

Section Genl.
File No. 9—30,
Serial No. 131

Diary No. of letter replied to 525 DO No. 02070

To

General and Revenue Secretariat

( )

the *193*

Date of issue 15/10/37

Signed by W. B. Thresher

.....

Copied by .....

Examined by .....

Dear Sir, I am desired to
~~In~~ invite your kind attention to the interviews between the Premiers at Ottawa in Council with the Rt. Hon. Ralph Nye and yourself in regard to the ~~question of the~~ investigation of the question of ~~and the~~ by a Technical Committee ~~and~~ with a view to minimise and prevent their occurrence and to enquire what progress has been made in the matter till now. The favour of an early reply is requested.

Yours sincerely,
8/13/10/37 13/10

To
The Chief Inspector
of Mines, Rangoon.

WD 71—GBPM—40,000—20-7-31

D 1551 Geol 3-30-132 70

DEVELOPMENT SECRETARIAT
11 OCT 1931
D.O.No. 6372

DEPARTMENT OF MINES AND EXPLOSIVES.

OFFICE OF THE CHIEF INSPECTOR OF MINES
IN MYSORE.

Telegraphic address: MINESPR.

Dated, Oorgaum, 19th . October 1931.

Dear Sir,

With reference to your D.O. letter No.2070/Geol.3-30-131 dated 15/10/1931 regarding the investigation of the question of Rockbursts by a Technical Committee, I regret to state that it has not been possible to form this Technical Committee owing to the absence of some of the Superintendents and other officers of the mines from the Field on their "Home" leave. Moreover, I was given to understand by Mr. Ralph Nye, wh interviewed the previous First Member in July last that the Member was not very anxious to push this matter any further as he (Mr. Nye) had explained to him that everything possible was being done to minimise danger to workmen.

Under these circumstances the investigation of this question was suspended and no progress has been made in the matter till now.

Yours sincerely,
C E Srinivasaraghavalu

B. T. Kesaviengar, Esq., B.A.,
Secretary to the Government of
His Highness' the Maharaja of Mysore,
Development Department
Bangalore.

fol 3-30-133 71

D.O. No.2311 dt 13-11-31.

Dear Sir,

with reference to your D.O. letter No.632 dated19-10-31 regarding the investigation of the question of rock bursts by a Technical Committee, I am desired to state that early steps may be taken for the formation of a Committee and the investigation ofRock-bursts.

Yours sincerely,

6/11/31

for

The Chief Inspector of Mines in Mysore.

that the matter should be kept alive and action taken as early as convenient for the formation of a Committee to investigate the question of rock bursts. I am to state in this connection that the Government agree to the appointment of such a Committee when the matter is ripe for the first meeting.